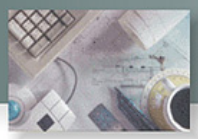

Product Component

DEFINITION	
Name	Digital Orthoimagery
Description	Orthoimagery provides a positionally correct picture of the earth. An orthoimage is a georeferenced image prepared from an aerial photograph or other remotely sensed data from which displacements caused by sensor orientation and terrain relief has been minimized. An orthoimage has the same geometric properties as a map and has a uniform scale. Digital orthoimages are composed of an array of georeferenced pixels that encode ground reflectance as a discrete digital value. Many geographic features, including those that are part of the NSDI framework, can be interpreted and compiled from an orthoimage. Orthoimages can also serve as a backdrop to reference the results of an application to the landscape.
Rationale	The NSDI framework may include imagery that varies in resolution from submeter to tens of meters. Accurately positioned, high-resolution data (pixels of 1 meter or finer) are presumed to be the most useful for supporting the compilation of framework features, particularly those that support local data needs. In some areas, lower-resolution imagery may be sufficient to support the framework and applications. Orthoimagery provides a useful tool for a variety of applications. Because many land features can be seen on an orthoimage, it can serve as a backdrop for visual reference purposes, saving the expense of creating vector files of features needed only for reference. Orthoimagery can be used to compile vector themes photogrammetrically. Imagery is a cornerstone to the state's assessment of taxes at the local level and its management of resources and planning at all levels. Finally, through communication and coordination, multiple users can leverage the acquisition and delivery of these imagery products across all levels of government thereby increasing their utility, versatility, and financial savings.
Benefits	The state and local governments invest hundreds of thousands of dollars in imagery acquisitions for use in assessment, planning, emergency response, natural resources management, and agricultural reporting. In essence a 'picture is worth a thousand words'. This imagery has the following benefits. • It provides the citizenry a permanent record of earth surface features from a bird's-eye-view for use in assessment, planning, emergency response, natural resources management, and agricultural reporting. • It allows for the capture of events such as floods wherein the ability to stop-action and 'map' the flood's extent in neighborhoods, etc. provides better documentation and delineation for relief. • We can see aspects of earth surface features that normally we could not see such as plant stress due to toxins, lack of water, or infestations which permits action to be taken prior to impacting the yield from these fields. • It facilitates the various aspects of planning and preparedness in the event of an incident where an emergency response is needed to protect the health, safety and welfare of the citizen. • It can detect, record, and monitor change to provide equity of tax assessment, service provision, and economic potential to all citizens.

ASSOCIATED ARCHITECTURE LEVELS			
Specify the Domain Name	Information		
Specify the Discipline Name	Geographic information Technology		
Specify the name of the associated Technology Area	Geospatial Data Development Standards		
KEYWORDS			
List Keywords	Digital Orthoimagery, Digital Ortho-quadrangle, DOQ, Digital Ortho-quarter-quadrangle, DOQQ, imagery, Orthographic correction, photogrammetry, pixels, image, georeference, geotiff, picture, photography, aerial photography, resolution, map, photomap		
VENDOR INFORMATION			
Vendor Name		*Website*	
Contact Information			
POTENTIAL COMPLIANCE SOURCES			
Name	Missouri GIS Advisory Committee	*Website*	www.mgisac.org
Contact Information	Missouri GIS Advisory Committee c/o Missouri Spatial Data Information Service University of Missouri-Columbia 104 Stewart Hall Columbia, MO 65211 573-882-1404		
Name	Federal Geographic Data Committee	*Website*	www.fgdc.gov/standards/status
Contact Information	Federal Geographic Data Committee U.S. Geological Survey, 590 National Center Reston, VA 20192 703-648-5514 email: FGDC@fgdc.gov		
COMPONENT REVIEW			
List Desirable aspects			
List Undesirable aspects			
Operating System		*Platform*	

ASSOCIATED COMPLIANCE COMPONENTS

Product

List the Product-specific Compliance Component Names	**Federal Content Standards for Digital Orthoimagery -**The Federal Geographic Data Committee is a 19 member interagency committee composed of representatives from the Executive Office of the President, Cabinet-level and independent agencies. The FGDC is developing the National Spatial Data Infrastructure (NSDI) in cooperation with organizations from State, local and tribal governments, the academic community, and the private sector. The NSDI encompasses policies, standards, and procedures for organizations to cooperatively produce and share geographic data. This federal content standard can be downloaded from: http://www.fgdc.gov/standards/status/sub3_6.html. **Missouri Content Standards for Digital Orthoimagery** - The objective of this standard is to define the orthoimage theme of the digital geospatial data framework and envisioned by the FGDC. The standard describes the processing, accuracy, reporting, and applications considerations for digital orthoimagery. The Missouri GIS Advisory Committee has adapted this content standard to Missouri and is currently in the adoption process on the MGISAC website (www.mgisac.org).

Configuration Links

List the Configuration-specific Compliance Component Names	

COMPONENT CLASSIFICATION

Provide the Classification	☐ *Emerging* ☒ *Current* ☐ *Twilight* ☐ *Sunset*
Sunset Date	

COMPONENT SUB-CLASSIFICATION

Sub-Classification	Date	Additional Sub-Classification Information
☐ *Technology Watch*		
☐ *Variance*		
☐ *Conditional Use*		

RATIONALE FOR COMPONENT CLASSIFICATION

Document the Rationale for Component Classification	The federal standard is the only standard in existence that defines digital orthoimagery development protocols. Missouri adapted this standard to the state and included more information specifically to address both state and local government acquisitions. It is the desire of the MGISAC that the standard proves useful in the development of RFP's and allow for more consistency and coordination in image contracting across the state.

MIGRATION STRATEGY

Document the Migration Strategy	

IMPACT POSITION STATEMENT			
Document the Position Statement on Impact			
AGENCIES			
List the Agencies Currently Utilizing this Product			
CURRENT STATUS			
Provide the Current Status	☐ *In Development* ☐ *Under Review* ☒ *Approved* ☐ *Rejected*		
AUDIT TRAIL			
Creation Date	8/13/03	*Date Approved / Rejected*	10/14/2003
Reason for Rejection			
Last Date Reviewed		*Last Date Updated*	
Reason for Update			